

The paragraph beginning at page 2, line 18, is amended as follows:

The known solutions include a diffused screen with a large (up to 50%) degree of image overlap or combination of various pre-screens with diffused screen resulting in lesser or no image overlap. Referring to Figure [2] 3, one of the most effective pre-screens known is a fused fiber optic face plate Figure 3, which works as a multiple channel spatial integration tube. Referring to Figure 4, in combination with a diffused screen, a fiber optic faceplate simulates a Lambertian screen. Application of fused fiber optic face plate has been described in U.S. Patent 5,626,410, incorporated herein by reference. Fused fiber optic faceplates are also commercially available from Schott Fiber Optics, Inc., InCom USA, Inc. and Collimated Holes, Inc. Manufacturing of a fused fiber optic faceplate is a highly labor consuming and expensive process. This state of the art has not had a commercial application because of a very high cost and limited sizes of the fused fiber optic faceplate available. The largest possible size is one square foot.

The paragraph beginning at page 5, line 7, is amended as follows:

In one embodiment, an optical faceplate is provided made of fibrous crystals having the following properties. The fibrous crystals have a regular fibrous structure, and grow as a conglomerate of aligned fibers. The fibrous crystals are colorless and possess a high transparency in the long dimension of the fiber. An example of a bulk crystal is shown in [at 100 of] Figure 6. Inter-scatter between fibers is low. The fibers align strictly in parallel, so the image transfer is coherent. The refractive properties of the crystal will support a proper wave guiding effect. The numerical aperture of a single fiber is within a range of about 0.20 - 0.66, depending on the application of the faceplate. In one embodiment, for ambient light rejection purpose, the numerical aperture is in a range of from about 0.24 to 0.35. The crystals are environmentally stable, i.e. capable of existing in a stable form at a temperature range from about

-20 to +70 degrees C. The crystals are non-poisonous, i.e. non-toxic. The shape of the fiber cross section does not have to be round, and the cross dimensions of separate crystalline fibers can be well below diffraction limit as they can work together as a fiber bundle. Referring again to Figure 6, crystal faceplates 10 [110] in accordance with the present invention are shown.

The paragraph beginning at page 6, line 23, is amended as follows:

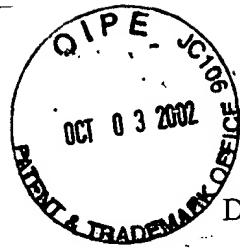
Referring to Figure 7, the present invention in one embodiment provides a projection display 100 comprising a pre-screen [120] having at least one lab-created crystal faceplate 110, in combination with a diffused rear projection screen 130. In one embodiment, the display further includes an anti-reflection coating on a viewing side of the diffused rear projection screen. In one embodiment, the present invention may provide a seamlessly tiled projection display efficiently and at a lower cost than prior projection displays.

### **IN THE CLAIMS**

The claims have not been amended. The currently pending claims 1-8 are set forth in the appendix entitled Pending Claims.

### **REMARKS**

Applicants have carefully reviewed and considered the Office Action mailed on June 27, 2002, and the documents cited therewith. Applicants hereby affirm the election of claims 1-8 which are now pending in this application.



Docket No. H17-26086 (256.063US1)

## CLEAN VERSION OF AMENDED SPECIFICATION PARAGRAPHS

### SEAMLESS REAR PROJECTION SCREEN

Applicant: Aleksandra Kolosowsky

Serial No.: 09/751,357

---

Amended paragraph beginning at page 2, line 18:

*[Signature]*

The known solutions include a diffused screen with a large (up to 50%) degree of image overlap or combination of various pre-screens with diffused screen resulting in lesser or no image overlap. Referring to Figure 3, one of the most effective pre-screens known is a fused fiber optic face plate Figure 3, which works as a multiple channel spatial integration tube. Referring to Figure 4, in combination with a diffused screen, a fiber optic faceplate simulates a Lambertian screen. Application of fused fiber optic face plate has been described in U.S. Patent 5,626,410, incorporated herein by reference. Fused fiber optic faceplates are also commercially available from Schott Fiber Optics, Inc., InCom USA, Inc. and Collimated Holes, Inc. Manufacturing of a fused fiber optic faceplate is a highly labor consuming and expensive process. This state of the art has not had a commercial application because of a very high cost and limited sizes of the fused fiber optic faceplate available. The largest possible size is one square foot.

Amended paragraph beginning at page 5, line 7:

*[Signature]*

In one embodiment, an optical faceplate is provided made of fibrous crystals having the following properties. The fibrous crystals have a regular fibrous structure, and grow as a conglomerate of aligned fibers. The fibrous crystals are colorless and possess a high transparency in the long dimension of the fiber. An example of a bulk crystal is shown in Figure 6. Inter-scatter between fibers is low. The fibers align strictly in parallel, so the image transfer is coherent. The refractive properties of the crystal will support a proper wave guiding effect. The numerical aperture of a single fiber is within a range of about

0.20 - 0.66, depending on the application of the faceplate. In one embodiment, for ambient light rejection purpose, the numerical aperture is in a range of from about 0.24 to 0.35. The crystals are environmentally stable, i.e. capable of existing in a stable form at a temperature range from about -20 to +70 degrees C. The crystals are non-poisonous, i.e. non-toxic. The shape of the fiber cross section does not have to be round, and the cross dimensions of separate crystalline fibers can be well below diffraction limit as they can work together as a fiber bundle. Referring again to Figure 6, crystal faceplates 10 in accordance with the present invention are shown.

Amended paragraph beginning at page 6, line 23:

Referring to Figure 7, the present invention in one embodiment provides a projection display 100 comprising a pre-screen having at least one lab-created crystal faceplate 110, in combination with a diffused rear projection screen 130. In one embodiment, the display further includes an anti-reflection coating on a viewing side of the diffused rear projection screen. In one embodiment, the present invention may provide a seamlessly tiled projection display efficiently and at a lower cost than prior projection displays.